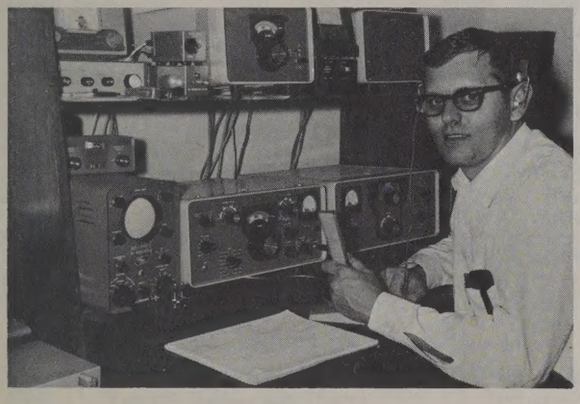
RALEIGH AMATEUR RADIO SOCIETY
RARS
WORLDWIDE FRIENDSHIP
P. O. BOX 12541

DAVE LANGLEY, W4YDY/K4IWJ
EDITOR

TOM ALEXANDER, WA4OTA
ASSISTANT EDITOR

July 1970 "Raleigh Amateur Radio Society News" Issue 10

MEET YOUR EDITOR - DAVE LANGLEY, W4YDY



Dave needs no formal introduction to the readers of RARS News, as it is largely thru his efforts as editor that we get our monthly newsletter. Dave's hometown is Aurora, N.C. down on the banks of the friendly Pamlico, now the home of Texas Gulf Sulphur. He was first licensed as a novice in 1952 and also a Technician. (Dual-license holding was legal in those days.) Six months later he got his general and in 1968 he got his advanced and extra-class ticket as well. Dave served in the U.S. Army Reserve, and took radio-TV technology at Gaston Technical Institute. For a number of years he worked as a technician for TV stations WNCT, WITN and WRAL in that order. For the past ten years he has been employed as an electronics technician for the Federal Aviation Administration, specializing in long-range radar, radar computers and microwave circuitry. Periodic training has taken him to the FAA Academy in Oklahoma City, Oklahoma, for courses in radar, and data processing.

Dave lives at 4517 Revere Drive (near North Hills Shopping Center) here in Raleigh, with his wife, Anne, and two daughters, Susan, age eight, and Robin, age five. Sporting a very lovely Collins setup, Dave operates mostly on phone on all bands-80 through 10 meters. He's not yet on 146.94 Mcs. but evesdrops with a monitor receiver quite often, so don't any of you VHF boys go "saying anything ugly" about him on FM. Dave's 50-foot telephone pole extends many, many feet into the clear above the surrounding landscape, and each Christmas he mounts a huge lighted star above his TA-33 beam. At night it can be seen from quite a distance and has, on a few dark nights, been mistaken for various things such as: (1) a UFO by the local CD boys, (2) the approach lights at Raleigh - Durham Airport, by a Piedmont pilot, (3) the early arrival of judgment day by a local inebriate. (It got particularly bad when his kilowatt rig would modulate the bulbs in the star.)

The club thanks you, Dave, for the fine work on our Newsletter.

Tom, WA4OTA

NEXT MEETING

The next monthly meeting of the RARS will be Wednesday evening, July 1st at 7:30 pm. The program will be an auction conducted by Bob Johnson-W4CQJ. Clean out your junk box, and bring your money too. The meeting will be at the Civil Defense Headquarters, in the basement of the N.C. State Government Administrative Building, on 116 West Jones Street. Ample parking is available behind the building. Please enter through the back door. Everybody is welcome.

FROM THE PRESIDENT

Help Wanted!

The Raleigh Amateur Radio Society is now busily engaged in working out final details to complete the planning of the Roanoke Division Convention scheduled October 31 - November 1. The Executive & Advisory Committees are enthusiastic, because of the response and positive reactions of the membership. We feel that we have the potential of holding the best convention ever held in the Division because of our size & the "go-power" of our members.

In undertaking such a project, we find that a substantial amount of money will be required to take care of bulk mailing, guarantees, prize commitments, printing and the like. At the close of the convention we expect to show a small profit, for future use in Ham-fests, and other such events. Monies needed at this time are for "operating capital," which may be returned when convention money is received.

The membership has approved the following procedures for Convention fund-raising:

1. Accept member loans. ($ 5 - $ 100)
2. Accept advance membership dues.
3. Hold an auction of donated "goodies."

   Since the purpose of the auction is fund raising, donated items will be given priority, although privately owned items may be sold under the following conditions:

   a. 20% of the sale be retained for the convention fund.
   b. The entire proceeds of the sale be loaned to the Convention Fund; this same amount to be repaid to the seller within 90 days <u>after</u> the convention.

It is hoped that all hams in the area will enter into the spirit of the Division Convention and assist in this drive - to raise the necessary operating capital.

The auction is scheduled for our next regular meeting on July 1, 1970, 7:30 p.m. Be sure to invite everyone who might be interested. Bob Johnson, W4CQJ, the "world's greatest auctioneer," advises us that "We need lots of contributors...sellers....and buyers."

This is another opportunity for RARS to show 'em what we have.

<u>We're counting on you, gang!</u>
Ed Alderman, WA4PEN

MONEY NEEDED

The Raleigh Amateur Radio Soc. needs money to operate the Roanoke convention in October. RARS members should consider a loan to the club....or advance payment of dues. There are a lot of pre-convention expenses coming up. Do your share by contacting Bill McDowell, K4CIA, RARS Treasurer.

October 31, 1970
Roanoke Division ARRL Convention

SPONSORED BY THE
RALEIGH AMATEUR RADIO SOC.
HILTON INN
RALEIGH, No. Carolina
. Exhibits .
. Technical Sessions .
. Traffic Meetings .
. DX Forum .
. QCWA Get-together .

YL-XYL PROGRAMMES
SATURDAY NIGHT BANQUET
AND MANY MANY MORE
CAREFULLY PLANNED
FEATURES & EVENTS TO
make this
A FINE CONVENTION

FOR SALE

T-60 XMTR Excellent Condition $25-Contact Dave Dameron WB4FGC

If sold, the money will be placed in the Convention fund.

FM CHATTER

Ed, WA4PEN, reports that the repeater collinear antenna is up at his QTH & hearing mobile stations as far away as Goldsboro. The sensicon receiver is also ready and the transmitter lacks only a few finishing touches on the crystal oscillator. Other details will be forthcoming soon, and all eyes are on current FCC - repeater-rules proposals.

Stu, W2GHK/4, calls members' attention to the June 1970 issue of "QST"-page 9 noting the ARRL's firm opposition to the FCC's proposed-repeater rules which appear to be unduly restrictive to our hobby interests. The League is working hard to protect our interests. Support them by writing and expressing your views.
Tom, WA4OTA

ANOTHER EXTRA IN RARS

For the second straight month, we have the pleasure of announcing that another member of the Raleigh Amateur Radio Society passed the Amateur Extra-Class exam. Bill Curry, K4CTW, accomplished the task on June 3rd. Who will it be next month? Fine work and congratulations Bill.

K4JUG - Hey, you guys from Lejeune?Where'd you get that cut on the upper part of your nose?
SgtW4 - Glasses
K4JUG - Gee, fellas, you're in Raleigh now; haven't you heard of contact lenses?
SgtW4 - Yeah, sure, but they don't hold as much beer.
K4JUG - 73

Bert, W4FMN

CAROLINAS TRAFFIC NET - MAY REPORT

CNE 6:45 pm edt 3573 kHz CNL 10:00 pm edt

Total Sessions	28/30	Different Stations	29	Average Traffic	1.9
Total Check-ins	154	Average Net Time	14.7	Message Rate	.12
Average QNI	5.5	Total Net Time	415	Total Traffic	58

NOTE: 2QNS reports missing and one night there was no net.

CHECK-INS	NCS	4RN	QNI
W4WXZ	6	2	19
K4OCU	0	0	18
WB4MLI	8	1	13
W4IRE	7	0	11
W4EVN	6	3	11
K4CWZ	0	0	10
WB4BGL	1	0	8
K4MC	0	3	7
W4NTO	0	5	6
WB4HGT	0	1	5
W4FMT ***	0	3	4
WA4LDM	0	0	4
K4PJW	0	0	4
WB4FQS	0	0	3
K4UOR	0	0	3
W4PED	0	0	3
K4CAX	0	0	2
WB4ETF	0	0	2
WA4YTQ	0	0	1
W4JQO	0	0	1
W4CHD	0	0	1
WA3NAZ	0	0	1
K4CPX	0	0	1
WB4OZL	0	0	1
W4FQS	0	0	1
WB4DXX	0	0	1
WB4MQC	0	0	1
WA4ZLK	0	0	1
WB4LIE	0	0	1

*** I am sorry to report that Jack W4FMT, passed away during May. The Carolinas Net sent flowers to the funeral at an expense of about $ 9.50. I have received only $ 4 in contributions. The rest will have to be made up from the postage fund, which will just about clean up that fund. I want to thank those who contributed and encourage all to do likewise. In order to continue mailing the bulletin,I will need many contributions.

The cost of mailing this bulletin ea.month is about $ 6. With not enough people on our mailing list to allow us to bulk - mail the bulletin, the cost is very high, about $ 72 a year. In order to continue mailing the bulletin to everyone, we will have to get donations from all the net members. $1 or 12 6¢ stamps would cover the cost for 1 person for one year.

If you would send your contributions....as soon as possible, it would make life a little easier on me when it comes time to mail the bulletin each month.

As most of you know, John, W4IRE, has retired as RM of North Carolina. Chuck-W4WXZ has consented to take over the job. Chuck and John have been working with each other to get the records straight when passing the job to Chuck. Good luck to Chuck.He's going to need it.

I will retire from my position as Assistant Manager at the end of July.Chuck will have to find a replacement for me - or end up licking all those stamps, and stapling all those bulletins himself. (See, I told you he would need all the luck he could get!)

We are having some small troubles on the net these days, but if we could pitch in & buy W4EVN an antenna; W4NTO a VFO; W4WXZ and WB4MLI a chirp filter; and WB4BGL a keyer, we would be all set.

73's and see you on the net.
(W4EVN is a lid)

Carl, WB4MLI

STILL NEEDED - About 30-inch high cabinet for linear amplifier. Standard 19-inch width.. or two shorter cabinets. Jim, WB4HAL, Raleigh, N.C.

CALENDAR of EVENTS
RARS

July 1 ..... Regular meeting
July 21 ..... Executive committee meets
August 5 ..... Regular meeting
August 18 ..... Executive committee meets
Sept. 2 ..... Regular meeting
Sept. 15 ..... Executive committee meets
October 7 ..... Regular meeting
October 20 ..... Executive committee meets
October 31-.. Roanoke Convention in Raleigh
November 1
Nov. 1-7 ..... N.C. Amateur Radio Week
Nov. 4 ..... Regular meeting
Nov. 7-8 ..... N.C. QSO party
Nov. 17 ..... Executive committee meets
December 2 ..... Regular meeting
December 15 ..... Executive committee meets

ABOVE DATES ARE SUBJECT TO ADDITIONS AND CHANGES

FRIED O R FRIED ?

The poor old RARS editor was cornered by the name tag committee, John Fried, W4WWD, at the last meeting. "You spelled my name wrong on the front page of the June issue, not once, but twice," he said. I apologized and told him it was my typewriter that goofed! So spell it Fried as in fried eggs. Now how was it pronounced? Is is Fried as in freed, or Fried as in fried eggs? Oh my, now he will corner me at the next meeting. Dave, W4YDY

QRM FROM THE EDITOR

Elsewhere in this issue is a roster of Raleigh Amateur Radio Society members - as of June 1970. Calls, class of license, address and telephone numbers are included. As you can see, we have 54 members, including 4 that are working on the Novice license. It is interesting to note how we compare with the national averages in classes of license.

CLASS	RARS MEMBERS	RARS %	NATIONAL %	CLASS	RARS MEMBERS	RARS %	NATIONAL %
Novice	6	12 %	8 %	General	5	10 %	36 %
Technician	6	12	20	Advanced	21	42	19
Conditional	7	14	13	Extra	5	10	4

Our club compares very favorably with the national averages. We have 50% more novices than the national average, due to the fine work of Bob Corns, K4MC, and John Bargamian, K4VLI, and their novice-training program. Technicians number less than the national average. Conditionals in the RARS average about the same as the U.S. Here is the good news. The U.S. average is 360% more than the RARS average for Generals and the RARS average is more than 50% higher than the U.S. average in the Advanced and Extra classes. Advanced & Extra-class licenses are held by 52% of the RARS radio amateurs. The training classes, held by Bob Johnson, W4CQJ, must be paying off.

The RARS has been very active in many projects. But the members are also working hard to advance themselves along with the club. Incentive licensing is not a flop as some are led to believe. Never in the history of amateur radio have there been so many working on code and theory to improve themselves. One of the major aims of incentive licensing was to do this. It worked! Dave, W4YDY

W4WWD SCORES HIGH IN WPX CONTEST

John Fried, W4WWD, opened up the airways in the 1970 CQ WW WPX contest in April. He ended up with a score of 119,190 points. 269 contacts were made that included 174 prefixes. John hopes to take all honors for the 4th call area.

OFFICIAL BULLETIN NR 274 FROM ARRL HEADQUARTERS NEWINGTON CONN MAY 28 1970 TO ALL RADIO AMATEURS BT

If you're planning portable or mobile operation this summer, a special ARRL form can be used to insure that you give all of the required information to the proper FCC office. Send your addressed stamped envelope to ARRL, 225 Main Street, Newington, Conn. 06111, requesting Form S43A. Please indicate how many FCC districts you will be operating within. If planning to visit ARRL and W1AW during the summer months, note that regular hours are 8:30 to four EDST, Monday thru Friday without appointment. Other times can be covered by writing and arranging for a tour. Printed directions are available without charge AR

OFFICIAL BULLETIN NR 275 FROM ARRL HEADQUARTERS NEWINGTON CONN JUNE 4, 1970 TO ALL RADIO AMATEURS BT

At the May 1970 ARRL Board Meeting, a motion was adopted that the ARRL Communications Department initiate a 160 meter band contest oriented to promote activity in this band of frequencies. Top band enthusiasts are urged to forward their ideas on dates, as well as format, for such a contest to the ARRL Contest Advisory Committee, as an aid to formulation of rules for this event. CAC addresses appear on page 62 of February QST AR

MINI - TECHNICAL REVIEW

June QST starts out on page 9 with the ARRL position on the FCC proposals for changes re VHF repeater opn. Read it to prove to yourself ARRL is responsive to the needs of us hams. Vy gud, especially the plug for cross-band open. Then follows a somewhat complex digital CW "2d Op," simplifying with store-bought circuit boards, a simpler 80-40-VFO, several VHF mobile whips, and an adapter to convert the o-scope to slow-scan TV monitors. Results of the 1970 ARRL Novice Roundup & the 23d ARRL VHF Sweepstakes are announced. Hopeless times for QSOs are listed under the FB feature, YL News and Views. (They're active!)

JUNE HAM gets right down to business with Ga Ar LED experiments on page 6. This article brings the wayward ham to terms, working with light-emitting diodes and coherence types. Lost? Then be sure and read this QSO. Then follow squibs on modulation standards for FM, a SS conversion of your GDO, microwave power detectors, SSB phase shifters, transistor-freq multipliers, and an RTTY FS meter. A truly FB QSO in the Repair Bench features trub-shooting mobile power supplies. On page 60 you can deep 6 your slipstick and read antenna dimensions for 0-29.7 MHz, including even radial lengths yet.

JUNE 73 leads off with a vy interesting account of the editor's QSY to Jordan and personal visit with No. 1 JYL himself, Chief Op King Hussein (and without phonetics). Nothing provincial about us brass pounders! (Just because we walk around without linears.) Next is a lengthy one on a "ring radiator," the DDRR. The 10-15M version appears to be a construction nightmare but tuning seems othodox. An experiment is discussed re placing a SWR reader where it really belongs, at the antenna. Remote opn is then explained. Many articles follow with emphasis on the issue's byword, antennas, e.g. Trap-type verticals, "Sly" beam with 21 db gain on 2M, top-loaded mobile for 20 M, 2M circular yagi with 11 elements. On page 105 is the finis to the amateur extra-class exam questions. Truly 73.

JUNE POPULAR ELECTRONICS primes the pump with a good attack on matching your TV antenna to to receiver (child's play for us hams). An IC signal injector for audio circuits is described in the Experimenter's Corner and on page 49 you can build an SCA adapter to pick up that FM subcarrier to hear cool music without the incessant commercials.

JUNE ELECTRONICS WORLD features sonic holography, including a definition for rank amateurs, SCR controls for small motors, nostalgic VT127 radar tube which gave birth to the EIMAC 100-TL, a rundown on the cesium beam atomic clock (we knew WWV were Greek letters), instant spotting of vehicles on the scope (don't believe it? Read AVM on page 42), another article on the decimal counter using figures of 8 and gess wat?--a sensitive burglar/fire alarm. Lots of gud QSO's on the freq.

JULY RADIO-ELECTRONICS tries to educate us in the best way to use mikes (with audio) basic rules for setting up PA sets (the old Army game, lots of squeal and guest-speaker cutoff, no bias), a one-day building of a FET dual-trace scope switch, FET-operated audio circuits, part 2 on triac circuits (dimmer and speed-controller bit), part 2 of discussion on opn/calibration of basic meters. This mag gets with the latest devices. Next comes the spark-gap unless my keen mind is slipping.

MAY MICROWAVE JOURNAL applies a note on a new microwave device, the binary varactor, a device displaying 2 separate capacitors in reverse bias opn with applications in phase shifters and variable freq. circuits. The lumped constant technique is related to microwave IC circuits and then we read about limitations of stripline Q, good for those of us weak on 20 KHz Q. A quickie review of your Laplacian renders most salubrious the reading of transfer analysis of waveguide propagation. AM anyone? As is obvious, unless you're MW oriented, this QSO spitter may be elusive.

MAY EEE has an outstanding pitch on how to select RF connectors. Some history is interesting, e.g. N comes from Bell Labs' Neill, and C from Amphenol's Concelman, with BNC's reflecting both these engineers' developing a later model of the old type B connector. (B, of course, is for W4FMN, ahem). The next time you handle that RF connector, remember the life you save may be....yours. For the computer-minded, on page 165 is a gud bit on digital sampling and recovery of analog signals. Hidden away on page 105 is a simple but most useful circuit to provide a reliable synch pulse for 60 Hz to generate a reliable square wave.

MAY 25 ELECTRONICS exposes us local types to the unification of 3 separate PCM systems into a national network in, as usual, lately it seems, JA-land. These Nips will swipe our finals as we switch off for QRT if we're not alert, maybe even if we are. Interested in TV? Read what makes possible the new flat, flexible TV display. Soon they'll be concave, and then the headshrinkers make a killing with the hippies or maybe even us squares. On page 125 we learn that ion implantation is becoming a production reality. Capacitance still rears its ugly head, howsomever.

1 JUNE ELECTRONIC NEWS headlines Treasury crackdown on Japan's dumping cases, which could have major impatt (formerly impact) on JA industries. EIA is in the ring. The role of servicemen and hardware maintenance are thot-provokers on pages 4 and 5. What's the warranty bit? QSY and find out under Communication Trends. Next, we see a most-informative treatment of broadcast-gear innovation, e.g. Scanimate, using a special TVcamera to translate art work into electrical signals. Get the glitch? Convert Playboy to CW, so we hams can understand the drooling. This mag, newspaper really, is unpretentious...but make no ditty-dum-dum-ditty, it surely focuses on the vy latest.

JUNE SPECTRUM just arrived at Castle FMN and this mag is turning into a veritable aviation gazette, with a 2d successive issue Class C amplifying air-traffic-control problems. Good pitch on the ground view of congested airports, plans of the FAA, and traffic snafues; Read 'em and weep. 100 yards of aircraft requiring 7-mile-long runways and all we hams want is a few measly gigahertz. Follows a good study of coding and its applications in space commo. Earth-moon commo will soon operate on intercom. There are also several appeals for the power types with blurbs on desensitization of DC power supplies to AC transients & a modernized distribution system for Hamburg nach Deutschland. Even the Secretary & Treasurer reports are made alive by the determined effort of the IEEE to improve its image. New products Applications is a FB addition to the format and the book-reviews cover books hams should be interested in, very complete,

Bert, W4FMN

THIS MONTH'S QUIZ -- THINK-IN How much audio power to modulate an amplifier 100 percent when the DC plate power is 1 KW? To produce 50 percent modulation?

ANSWER TO LAST MONTH'S QUIZ -- THINK-OUT (100/1000) (1/10) (24x30) is 7.2 kwh/mo - and (7.2) (3.2) is 23.04 ¢/month. QED QRT

SICK - IN

VK4YDY - Hey, Stu, I thot ur cat's handle was Ben.
W4GHK - Well, we call it Ben Hur now.
VK4YDY - Howcum, OM?
W4GHK - It just had harmonics.

VP4MLI - Hear about John's trying to get that kid's toy parachute out of his brand-new 40-foot tower, complete with nametag?
X4PEN - Naw, that I didn't. Wha' hoppen?
VP4MLI - Well, he fell off the roof and the meatwagon picked him up.
X4PEN - By George, that's a shame.
VP4MLI - Yeah, one of the attendants saw him clutching the toy and QSO'd: ... "I bet he's sorry he jumped off with that toy parachute."

W2BXE - I gung electrician wid my toothache.
DL4MC - An electrician! Ever heard of dentists?
W2BXE-R, but I use an electric toothbrush.

K4CQJ - Hey, why in the world did Bob buy that monstrous steamroller at our auction at RARS last nite. It's huge.
WN4WWD- Oh, he's a hippie, I think, raising mashed potatoes.

As K4CIA always says on CW, show me a doorknob and I'll show you something to adore. -73-

W4PEN (for RARS): AIRBORNE! ALL THE WAY!

Ed(at formal, very formal RARS meeting) - OK, now let's have the secretary's report. Somebody please wake him up.
Bob(snort, and pause) - Er, uh, you won't believe this, boss, but I made a paper airplane out of the report on the way here and . . .
Ed(disgusted, and regusted) Well, where's the report now?
Bob - Someone hijacked it to Cuba.

EL4ZNA - Two diapers for my baby brother, please.
W4clerk- That'll be one dollar plus tax.
EL4ZNA - Never mind the tax. We're gonna pin 'em on.
Bert,W4FMN

RARS WELCOMES SIX NEW MEMBERS

At the June 3rd meeting, the Raleigh Amateur Radio Society welcomed five amateurs, and one prospective novice to the membership. They are David Thomas, K4SAN; H. Warren Brainard, WB4DAR; Hugh Kirby, WN4MUX; Brian Wittman, WN4PMI; John Wittman, WN4PMJ; and Norm Ramge w/ the Wake County Civil Defense. The RARS now totals 54 members.

RARS ROSTER

AS OF JUNE 1970

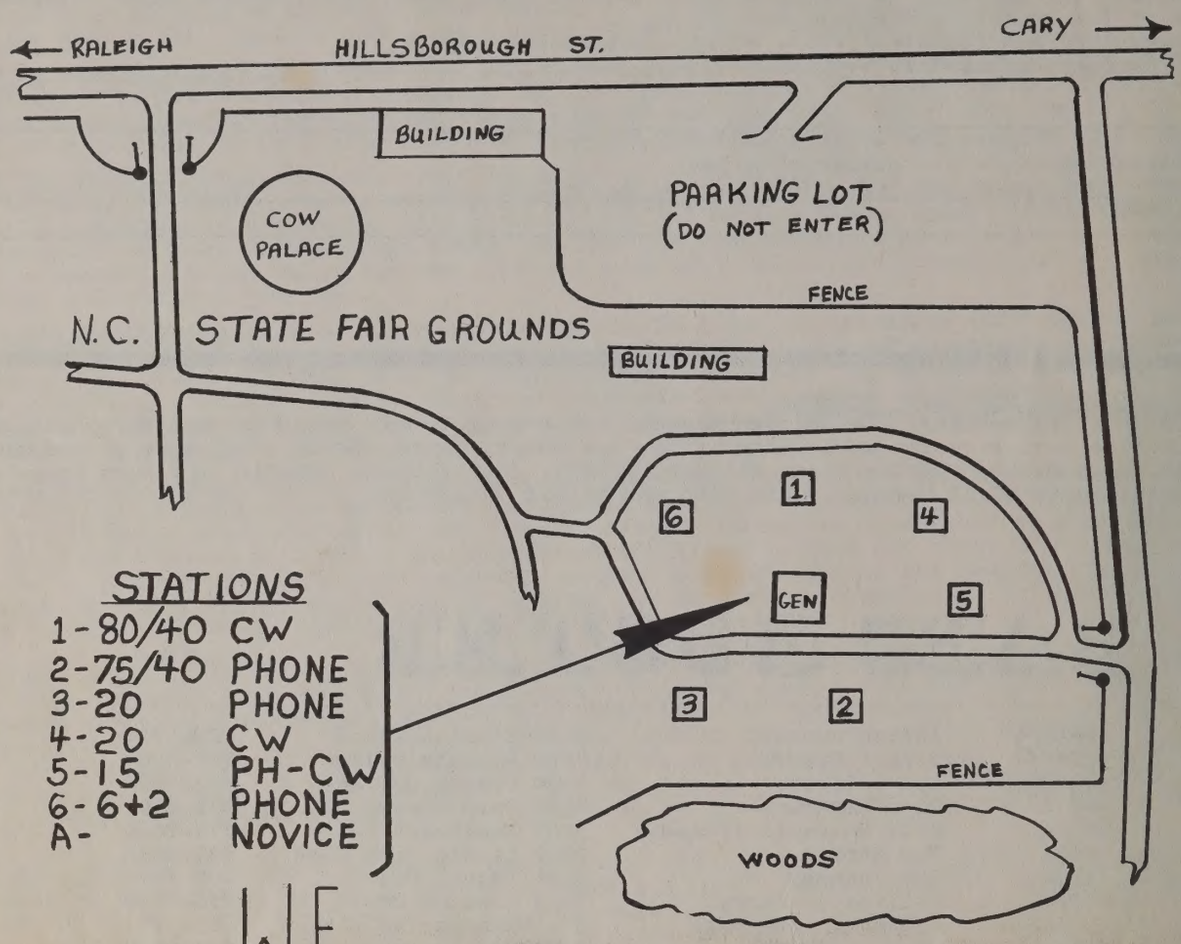
W2BXE/4	Austin Farrell	6606 Clinton Place	828-4748
W2GHK/4	Stuart Meyer	4000 Wingate Drive	787-6702
WB2VKJ/4	Dan Wolfe	1400 Creech Rd. Apt. 2	772-5822
W4BRT	Ross Reynolds	1420 Park Avenue	832-8091
K4CIA	Bill McDowell (Treas.)	3709 Huntleigh Drive	876-2686
K4CQJ	Tom Martin	2809 Little John Road	833-5620
W4CQJ	Bob Johnson	5401 Thayer Drive	787-6044
K4CTW	William J. Curry	5303 Clemson Court	876-2654
WB4DAR	H. Warren Brainard	316 Oakridge Rd./Cary	467-1771
W4EEI	Jesse Hodges	310 Pogue Street	833-0229
WB4FGC	Dave Dameron	414 Scotland Street	787-2846
W4FMN	Bert Bailey	701 Currituck Drive	787-1643
W4FTK	Glenn Guthrie	1308 Chaney Road	833-8594
WB4HAL	Jim Wilson	828 Greenwich St.	828-3663
WB4HHI	Harry Thompson	509 Harvard Street	787-5593
W4HHN	Keith Neighbors	121 Johnson St./Garner	772-1541
W4HUW	Max Silvers	Rt. 4 Box 449	832-1559
W4IXW	Carl Rice	2409 Greenway Ave.	787-5371
WA4JFU	Hubert Foster	105 W. Aycock Street	828-6151
W4JUG	Jim Johnson	815 Coleman Drive	833-9189
W4KXW	Bob Morris	5309 Birch Place	876-3088
WN4LFY	Don Alderman	3101 Julian Drive	876-0340
K4MC	Bob Corns	1619 Oberlin Road	828-6005
WB4MKY	Paul Thoburn	6802 Phillips Court	833-7649
WB4MLI	Carl Crumley (EC)	136 Rose Street/Cary	467-9062
WB4MQC	Paul Stroud	606 Raleigh St./Fuquay	552-2837
WN4MUX	Hugh Kirby	4505 Revere Drive	--------
WB4MXC	Ken MacNeilage	4512 Gates Street	787-0769
WB4NAW	Steve Kastelberg	801 Pamlico Dr./Cary	467-9132
WB4NZB	Richard Converse	Box 471, Wake Forest	556-3353
W4OGH	Tom Caruthers	4115 White Pine Drive	787-2947
WB4ORT	Harold Crumley	136 Rose St./Cary	467-9062
WA4OTA	Tom Alexander	2831 Exeter Circle	782-0754
WB4OZL	Ron McCann	804 Dixie Trail	832-8679
WA4PEN	Ed Alderman (President)	3101 Julian Drive	876-0340
WN4PMI	Brian Wittman	2016 Hillock Drive	782-1746
WN4PMJ	John Wittman	2016 Hillock Drive	782-1746
WB4PNR	George Wallace	1418 Marlborough Road	834-9059
K4PSP	Mike Falzone	13 Friendly Drive	834-6581
WN4PZW	Paul Browne	4419 Gates Street	787-4299
WN4PZX	Alan Browne	4419 Gates Street	787-4299
K4SAN	Dave Thomas	3020 Spanish Ct. Apt 5	832-1629
WA4UXU	Mike Wood	205 Tyson Ave./R. Mount	--------
K4VLI	John Bargamian	108 W. Aycock Street	828-4710
WA4WSF	Henry Middleton	2208 Creston Road	833-8636
W4WWD	John Fried	3606 Winton Road	876-1274
W4YDY	Dave Langley	P.O. Box 17124	787-0430
WA4ZNA	Lee Johnson (V. Pres.)	3312 Ashby Place	876-2484
W4ZVK	Walt Chambers	2202 Hawkins Street	834-2989
WA4ZZN	Bob Workman (Sec.)	3625 Brentwood Road	876-2204
no call	Nelson Ayers	1041 Shelly Road	787-2103
no call	Norm Ramge	Box 1007/Poole Dr/Garner	772-1870
no call	Buddy Storie	Rt. 10, Box 401-C	772-5376
no call	Dennis Workman	3625 Brentwood Road	876-2204

LATE ADDITIONS

K4SAN	David Thomas
WN4MUX	Hugh Kirby

Raleigh Amateur Radio Society

WELCOME TO THE R.A.R.S. FIELD DAY - JUNE 27-28



STATIONS

1 - 80/40 CW
2 - 75/40 PHONE
3 - 20 PHONE
4 - 20 CW
5 - 15 PH-CW
6 - 6+2 PHONE
A - NOVICE

WE MADE IT,

SET UP TIME - 9AM - 27TH
BEGIN OPERATING - 2PM
STOP OPERATION - 5PM - 28TH

WE NEED YOUR SUPPORT

FD-70

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R A R S
P.O. Box 12541
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